This report is required by law (7 USC 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

See reverse side for additional information.

Interagency Report Control No
0180-DOA-AN

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

1. REGISTRATION NO. 93-R-0435

CUSTOMER NO. 9194

FORM APPROVED
OMB NO. 0579-0036

2. HEADQUARTERS RESEARCH FACILITY *(Name and Address, as registered with USDA, include Zip Code)*

UNIVERSITY OF CALIFORNIA, LOS ANGELES
OFFICE OF THE CAMPUS VET - D L A M
924 WESTWOOD BLVD., SUITE 1050
LOS ANGELES, CA 90024

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets if necessary.)

FACILITY LOCATIONS*(sites)*

(b)(2)High, (b)(7)(F)

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY *(Attach additional sheets if necessary or use APHIS FORM 7023A)*

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. *(An explanation of the procedures producing pain or distress in these animals and the reasons such drugs were not used must be attached to this report)*	F. TOTAL NO OF ANIMALS (Cols. C + D + E)
4. Dogs			11		11
5. Cats		8	7		15
6. Guinea Pigs		6		1350	1356
7. Hamsters					
8. Rabbits	10	481	308		789
9. Non-Human Primates		4	28		32
10. Sheep			2		2
11. Pigs			102	46	148
12. Other Farm Animals					
13. Other Animals					
Chinchillas			16		16

ASSURANCE STATEMENTS

1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
2) Each principal investigator has considered alternatives to painful procedures.
3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all the exceptions is attached to this annual report.** In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional official)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143)

SIGNATURE OF C.E.O. OR INSTITUTIONAL OFFICIAL	NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL *(Type or Print)*	DATE SIGNED
(b)(6),(b)(7)(c)	(b)(6),(b)(7)(c)	11/13/2006

APHIS FORM 7023
(AUG 91)

(Replaces VS FORM 18-23 (Oct 88), which is obsolete

PART 1 - HEADQUARTERS

1. Registration Number: 93-R-0435 / 9194

2/3. Species (common name) & Number of animals used in this study:

Guinea Pigs (1350)

4. Explain the procedure producing pain and/or distress.

1) 1,212 Guinea Pigs-Infection with M. Tuberculosis. Guinea pigs are immunized with a vaccine. The route of immunization is intradermal (ID), intramuscular (IM), or subcutaneous (SQ). In some experiments, guinea pigs are boosted with one or more M. tuberculosis extracellular proteins, at various intervals after the initial immunization. At ~10 weeks, the guinea pigs are skin-tested for a delayed-type hypersensitivity (DTH) response and then challenged with an aerosolized dose of M. tuberculosis. 2) 138 Guinea Pigs-Infection with Leptospira. Guinea pigs will be experimentally infected by intraperitoneal (IP) injection of a 500ul volume of culture which contains 10^3, 10^5 or 10^7 Leptospira. Before injection, the injection site of the guinea pig will be made aseptic by swabbing with 70% ethanol.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)

1) The only medications that could possibly relieve any discomfort from Tb would be anti-tuberculosis antibiotics. Treating the animals with antibiotics would completely defeat the purpose of the experiment, which is to assess the efficacy of a vaccine. In the rare event that an open sore/necrotic skin lesion should occur as a result of the BCG vaccine or skin test, and the guinea pig was in pain/distress, veterinary advice would be sought and topical analgesics could be applied. Guinea pigs infected with M. Tuberculosis develop disseminated disease that is manifested by anorexia and weight loss. Animals are weighed daily to monitor progression of the disease, and euthanized immediately if they become moribund.
2) The primary reason for inclusion of animals in category E is to provide a source of infected tissue from which Leptospira can be extracted and characterized. The use of any pain/distress/discomfort-relieving methods will interfere with the host environment and either inhibits the growth of Leptospira in vivo or results in leptospira responding to host conditions not normally encountered during infection which in turn results in inaccurate results for the development of a suitable vaccine. Leptospira can be grown in the lab. However, the leptospira that grows in the lab is very different than the leptospira that grows in an infected animal. A suitable vaccine can only be made using the leptospira that grows in the infected animal. Overall, the general goal of these experiments is to infect animals, from which the leptospira can be recovered. They will then be characterized in order to develop a vaccine.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency: CFR:

Approval Status:
Approved/Disapproved By:
Date:

Disapproved Reason:

APHIS Form 7023 Column E Explanation

This form is intended as an aid to completing the APHIS Form 7023 Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

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1. Registration Number: 93-R-0435

2/3. Species (common name) & Number of animals used in this study:

Pigs (46)

4. Explain the procedure producing pain and/or distress.

The procedure is to stop the circulation, either with normal temperature (sudden death), or with low body temperature simulating stroke with periods of no brain blood flow. Two procedures are used to produce cardiac arrest-induced stroke. The first is induction of fibrillation by way of electrical stimulus (normothermic), and the second is hypothermia by way of lowering the temperature of circulating blood. Both procedures are done with the pig anesthetized with isoflurane and connected to a heart/lung machine via venous and arterial catheters in the inguinal area. Following the circulatory event, the pigs are taken to the MRI unit for a brain scan to determine the extent of the lesion(s).

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)

This study attempts to determine the extent of brain injury after circulatory arrest. Local anesthesia injections (i.e., Marcaine) are administered instead of systemic buprenorphine for postoperative pain relief following placement of venous and/or arterial cannulas. The only invasive procedure is catheter placement. The protocol is Pain Category E, as this provides the coverage needed to discover the effects of the stroke like end point. As described this is without pain, and use of local anesthesia will continue. The reason for witholding global agents is related to clinical events whereby only local pain follows groin incisions. Induction of stroke could cause motor deficits or seizures. In this project, the pig is monitored continuously for 24 hours following the stroke induction by laboratory staff, and then euthanized. Seizures (which have not occurred to date) would be controlled with diazepam. Motor deficits sever enough to impair normal food and water consumption requires intravenous fluid therapy. Analgesia is provided at the catheter insertion site via bupivicaine (Marcaine) injection. The goal of this study is to 1) distinguish transient from permanent brain damage via MRI imaging, and 2) determine the efficacy of controlled reperfusion to prevent | reperfusion injury| . Administration of opiates or non-steroidal anti-inflammatory agents (NSAIDS) could alter the normal inflammatory response to ischemia, as well as the leucocyte response involved in reperfusion injury.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency: CFR: